ACCRETECH

SURFCOM NEX

ENGLISH

Complete Measurement of Surface Texture and Contour in One Equipment

NEW Surface Texture and Contour Measuring Equipment

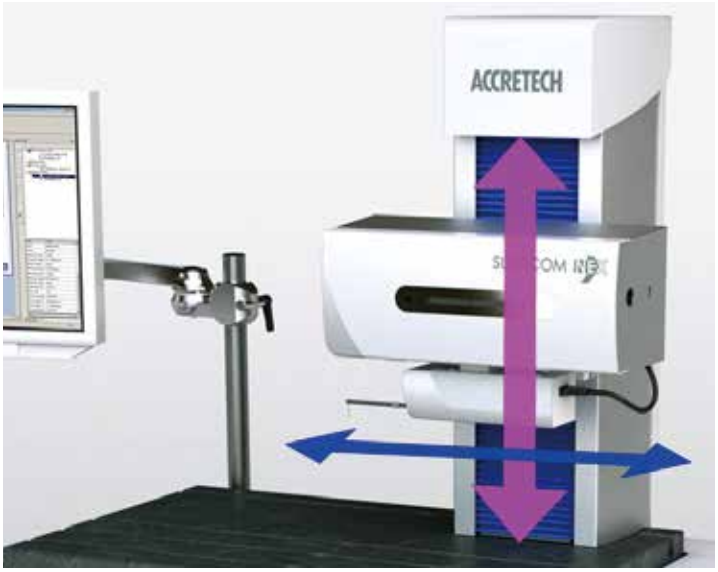
SURFCOM NEX

“NEX”t stage of SURFCOM is **wider**

Measuring a wide variety of workpieces under varying t

When you need surface texture, contour, or you may require both. The ability to freely combine detectors to suit any workpiece.

Equipped with newly-developed, wide-range hybrid detectors covering more than twice the range of conventional machines, this machine efficiently evaluates the surface texture and contour of inclined surfaces, undulating shapes, and curved surfaces in one trace. In addition, special-purpose detectors for surface texture and contour measurement can be freely switched and added at a later stage depending on the workpiece. As long as you have one SURFCOM NEX, you won’t need another surface texture or contour measuring equipment.



Preparation and measurement in a short time with the fastest drive in the class and wide-range hybrid detectors

Significantly improved drive speed reduces the time for approaching workpieces in manual mode, creating CNC programs and drive during CNC measurement. This improves efficiency throughout the inspection process, from preparation to measurement. In addition, by using a wide-range hybrid detector, there is no need to measure surface texture and contour shape separately, and necessary precise alignment before measuring the surface texture of inclined or curved surfaces can be skipped. This means inspections can be performed with minimal effort in the shortest period of time.

The world's only linear motor drive machine that can measure ultra-low vibration and operate at 20±5 degrees Celsius.

SURFCOM NEX inherits the linear motor drive unit, a patented technology of ACCRETECH, from a conventional SURFCOM NEX. An ultra-low vibration drive mechanism reduces noise caused by vibration and provides high-accuracy measurement results. Moreover, by offsetting the impact of temperature change on the scale in real time, accuracy can be assured over a wide temperature range of 20±5 degrees Celsius. Reliable measurement results are obtainable even in environments where temperature control is difficult.

and **faster** towards automation

emperature environments in a short period of time

Tradition Developed over Years

Achieving high levels of versa

Extremely high-speed driving enables shorter tact time

X-axis (horizontal): 100 mm/s, 1.6 times faster than conventional instruments
C-axis (vertical): 50 mm/s, 5 times faster than conventional instruments

- The column is equipped with a newly developed one-way clutch and brake Vertical movement of the drive section adjusted to the same load, which has significantly increased driving speed and acceleration. **Patented**
- Higher measurement efficiency for individual workpieces, and shorter tact time for automated continuous measurement combined with robots

The linear motor tracing driver minimizing vibration and achieving highly accurate measurement. **Patented**

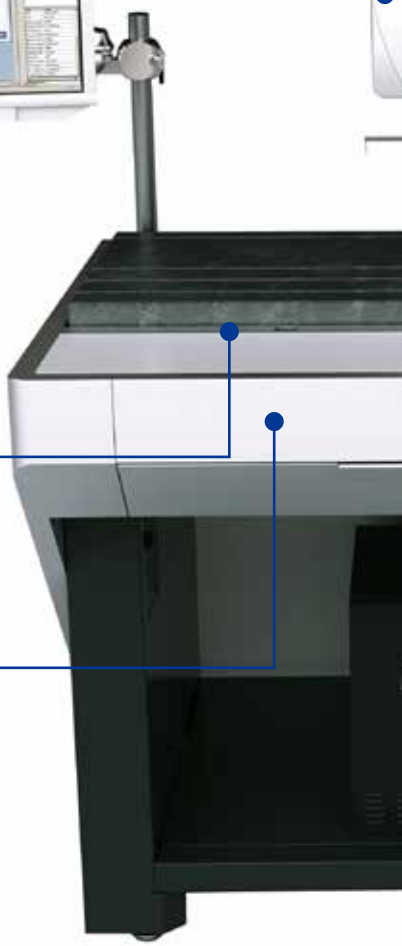
- Non-contact and low-vibration driving allows for low noise and highly accurate measurement.
- The simple structure without a gear box or ball screws can maintain long-term and stable high accuracy.

With the real-time temperature correction technology,accuracy is guaranteed under a wide range of temperature 20℃ ±5℃

- Temperature changes of the scale are detected by the temperature sensor installed in the tracing driver to automatically correct expansion/contraction of the scale on a real time basis.
- Highly reliable measurement can be realized even under a temperature changing environment.

Selectable monitor size and position

- A 17" monitor as standard or about 24" monitor as optional can be selected.
- A monitor can be installed on either side of the stand (DX type)



Easy to place a workpiece on the measuring stand base

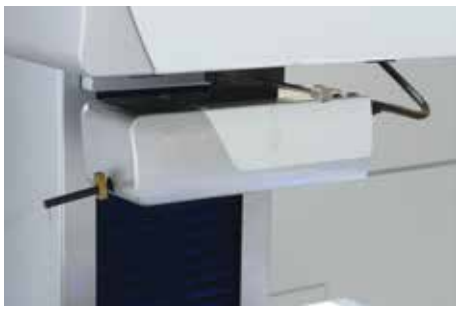
- Wider than the conventional SURFCOM NEX by 100 mm (-12, -13, -22, -23)
- Positioned at the left edge of the stand makes it easy to place a workpiece from the left side.

An useful drawer for accessories (option)

and Innovative New Technology

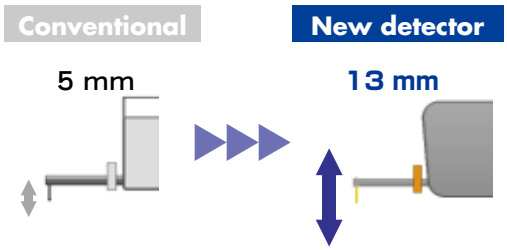
tility, efficiency, and reliability

One trace measurement both for surface texture and contour profile



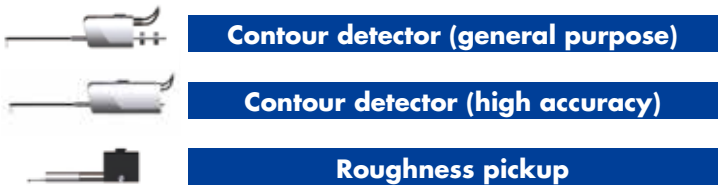
Hybrid detector

Newly developed wide-range hybrid detector! Z-axis measurement range: 13 mm, 2.6 times wider than conventional detectors



- LH=100 mm stylus expanding the measurement range to 26 mm (a stylus for both roughness and contour measurement is optional)
- In addition to its wide measuring range, it has a high resolution of 0.0009 µm across the all measurement range in the Z-axis direction (with LH=50 mm stylus)

It offers flexibility so that a dedicated detector for surface texture or contour profile can be installed later



Contour detector (general purpose)

Contour detector (high accuracy)

Roughness pickup

- Supporting multiple sensors so that you can select a detector for intended use
- It can be used as a multifunction instrument with more than one detector combined
- Since other detectors can be installed later, you can first purchase the instrument with minimum specification and later add detectors as necessary to expand the function. As such it is very flexible

The column and driver free from daily maintenance

- Newly developed lubrication-free sliding guide and lubricated and corrosion resistance coating is used for the Z-axis column
- The column is maintenance-free. It is highly durable even when it is integrated into an automated system for continuous operation
- Daily maintenance, such as grease-up, is not required for the linear motor X-axis tracing driver.

Real-time control of the driving speed A new type of operation panel for safe measurement

- Newly equipped with an override dial to control the driving speed between 0 and 100% of the maximum value on a real-time basis
- Middle point, which is useful for CNC programming, can be registered with one button

Registration button for middle points

Override dial

ACCRETECH

ISO 9001
ISO 14001
BUREAU VERITAS
Certification

BUREAU VERITAS 1828

UKAS MANAGEMENT SYSTEMS 0008

ISO 9001 and ISO 14001 awarded to the Hachioji and Tsuchiura Plants

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